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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,767	02/04/2004	Michael J. DeLuca	FN101-CIP-2	2360
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JACKSON & CO., LLP 6114 LA SALLE AVENUE #507 OAKLAND, CA 94611-2802			EXAMINER QUIETT, CARRAMAH J	
			ART UNIT 2622	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/772,767	Applicant(s) DELUCA ET AL.	
	Examiner Carramah J. Quiett	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-126 is/are pending in the application.
4a) Of the above claim(s) 71-97 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,36 and 98-126 is/are rejected.
- 7) ☒ Claim(s) 1-70 is/are objected to.
- 8) ☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/13/05, 07/20/05, 11/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 71-97 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 06/25/2007.

Information Disclosure Statement

2. The information disclosure statement (IDS), filed on 01/13/2005, 07/20/2005, 11/18/2005, has been placed in the application file, and the information referred to therein has been considered as to the merits.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Double Patenting

4. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference

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claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. **Claims 1 and 36** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over *claim 10* of U.S. Patent No. 6,407,777 in view of Benati et al. (U.S. Pat. #5748764).

For **claim 1**, U.S. Patent No. 6,407,777 discloses a portable digital camera having no photographic film, comprising:

- (a) an integral flash for providing illumination during image acquisition (recording);
- (b) a digital image capturing apparatus for acquiring (recording) an image; and
- (c) a red-eye filter for modifying an area within the image indicative of a red-eye

phenomenon. Please read col. 7, lines 12-19, which is Claim 10 of U.S. Patent No. 6,407,777.

However, U.S. Patent No. 6,407,777 does not have the limitation, “based on an analysis of a subsample representation of selected regions of the image.”

In a similar field of endeavor, Benati discloses a red-eye filter for modifying an area within the image indicative of a red-eye phenomenon based on an analysis of a subsample representation of selected regions of the image (figs. 2-4; col. 3, lines 46-62; col. 4, lines 17-45; col. 7, lines 8-35). In light of the teaching of Benati, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify U.S. Patent No. 6,407,777 with a red-eye phenomenon based on an analysis of a subsample representation of selected regions of the image in order to improve defective colored eye in an image and perform correction at different resolutions (Benati, col. 1, line 64 – col. 2, line 2).

For **claim 36**, U.S. Patent No. 6,407,777 discloses a portable digital camera having no photographic film, comprising:

- (a) an integral flash for providing illumination during image recording;
- (b) a digital image capturing apparatus for recording an image; and
- (c) a red-eye filter for modifying an area within the image indicative of a red-eye

phenomenon. Please read col. 7, lines 12-19, which is Claim 10 of U.S. Patent No. 6,407,777. However, U.S. Patent No. 6,407,777 does not have the limitation, “based on an analysis of a subsample representation of selected regions of the image.”

In a similar field of endeavor, Benati discloses a red-eye filter for modifying an area within the image indicative of a red-eye phenomenon based on an analysis of a subsample representation of selected regions of the image (figs. 2-4; col. 3, lines 46-62; col. 4, lines 17-45; col. 7, lines 8-35). In light of the teaching of Benati, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify U.S. Patent No. 6,407,777 with a red-eye phenomenon based on an analysis of a subsample representation of selected regions of the image in order to improve defective colored eye in an image and perform correction at different resolutions (Benati, col. 1, line 64 – col. 2, line 2).

7. **Claims 1 and 36** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over *claim 1* of U.S. Patent No. 7,042,505 in view of Benati et al. (U.S. Pat. #5748764).

For **claim 1**, U.S. Patent No. 7,042,505 discloses a portable digital camera having no photographic film, comprising:

- (a) an integral flash for providing illumination during image acquisition;
- (b) a digital image capturing apparatus for acquiring an image; and
- (c) a red-eye filter for modifying an area within the image indicative of a red-eye phenomenon. Please read col. 6, lines 34-40, which is Claim 1 of U.S. Patent No. 7,042,505. However, U.S. Patent No. 7,042,505 does not have the limitation, “based on an analysis of a subsample representation of selected regions of the image.”

In a similar field of endeavor, Benati discloses a red-eye filter for modifying an area within the image indicative of a red-eye phenomenon based on an analysis of a subsample representation of selected regions of the image (figs. 2-4; col. 3, lines 46-62; col. 4, lines 17-45; col. 7, lines 8-35). In light of the teaching of Benati, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify U.S. Patent No. 7,042,505 with a red-eye phenomenon based on an analysis of a subsample representation of selected regions of the image in order to improve defective colored eye in an image and perform correction at different resolutions (Benati, col. 1, line 64 – col. 2, line 2).

For **claim 36**, U.S. Patent No. 7,042,505 discloses a portable digital camera having no photographic film, comprising:

- (a) an integral flash for providing illumination during image recording (acquisition);

(b) a digital image capturing apparatus for recording (acquiring) an image; and
(c) a red-eye filter for modifying an area within the image indicative of a red-eye phenomenon. Please read col. 6, lines 34-40, which is Claim 1 of U.S. Patent No. 7,042,505. However, U.S. Patent No. 7,042,505 does not have the limitation, “based on an analysis of a subsample representation of selected regions of the image.”

In a similar field of endeavor, Benati discloses a red-eye filter for modifying an area within the image indicative of a red-eye phenomenon based on an analysis of a subsample representation of selected regions of the image (figs. 2-4; col. 3, lines 46-62; col. 4, lines 17-45; col. 7, lines 8-35). In light of the teaching of Benati, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify U.S. Patent No. 7,042,505 with a red-eye phenomenon based on an analysis of a subsample representation of selected regions of the image in order to improve defective colored eye in an image and perform correction at different resolutions (Benati, col. 1, line 64 – col. 2, line 2).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 98-118 and 121-126** are rejected under 35 U.S.C. 102(b) as being anticipated by Benati et al. (U.S. Pat. #5748764).

For **claim 98**, Benati teaches a method of filtering a red eye phenomenon from an acquired digital image comprising a multiplicity of pixels indicative of color (figs. 2-4; col. 3, lines 46-62), the method comprising:

(a) providing illumination during image acquisition (Abstract; col. 2, lines 3-5; col. 8, line 66 – col. 9, line 1);

(b) acquiring a digital image (col. 3, lines 24-35); and

(c) determining whether one or more regions within a subsample representation of said acquired digital image are suspected as including red eye artifact (col. 3, lines 24-45).

For **claim 99**, Benati teaches the method of claim 98, further comprising varying a degree of the subsample representation for each region of said one or more regions based on said image (col. 4, line 51 – col. 5, line 21).

For **claim 100**, Benati teaches the method of claim 98, further comprising generating the subsample representation based on said image (col. 4, line 51 – col. 5, line 21).

For **claim 101**, Benati teaches the method of claim 98, further comprising generating the subsample presentation utilizing a hardware-implemented subsampling engine (col. 3, lines 46-62).

For **claim 102**, Benati teaches the method of claim 98, further comprising testing one or more regions within said subsample representation determined as including red eye artifact for determining any false redeye groupings (col. 3, line 63 – col. 4, line 16; col. 4, line 51 – col. 5, line 21).

For **claim 103**, Benati teaches the method of claim 98, further comprising:

(d) associating said one or more regions within said subsample presentation of said image with one or more corresponding regions within said image (col. 4, line 51 – col. 5, line 21); and

(e) modifying said one or more corresponding regions within said image (col. 7, lines 8-35).

For **claim 104**, Benati teaches the method of claim 98, wherein the determining comprises analyzing meta-data (bit map) information including image acquisition device-specific information (col. 4, lines 17-45).

For **claim 105**, Benati teaches the method of claim 98, further comprising analyzing the subsample representation of selected regions of said digitized image, and modifying an area determined to include red eye artifact (col. 3, lines 24-45).

For **claim 106**, Benati teaches the method of claim 105, wherein the analysis is performed at least in part for determining said area (col. 3, line 63 – col. 4, line 16).

For **claim 107**, Benati teaches the method of claim 105, wherein the analysis is performed at least in part for determining said modifying (col. 3, line 63 – col. 4, line 16).

For **claim 108**, Benati teaches the method of claim 105, wherein said selected regions of said digitized image comprise the entire image (col. 3, lines 24-45).

For **claim 109**, Benati teaches the method of claim 105, wherein said selected regions of said digitized image comprise multi resolution encoding of said image (col. 7, lines 8-35).

For **claim 110**, Benati teaches the method of claim 105, wherein at least one region of the entire image is not included among said selected regions of said image (col. 3, line 63 – col. 4, line 16; col. 4, line 51 – col. 5, line 21).

For **claim 111**, Benati teaches the method of claim 105, wherein said analyzing is performed in part on a full resolution image and in part on a subsample resolution of said image (col. 7, lines 8-35).

For **claim 112**, Benati teaches the method of claim 105, further comprising changing the degree of said subsampling (col. 4, line 51 – col. 5, line 21).

For **claim 113**, Benati teaches the method of claim 112, wherein said changing the degree of said subsampling is determined empirically (col. 4, lines 6-16).

For **claim 114**, Benati teaches the method of claim 112, wherein said changing the degree of said subsampling is determined based on a size of said image (col. 7, lines 8-35).

For **claim 115**, Benati teaches the method of claim 112, wherein said changing the degree of said subsampling is determined based on a size of selected regions (col. 7, lines 8-35).

For **claim 116**, Benati teaches the method of claim 105, further comprising saving said digitized image after applying said filter for modifying pixels as a modified image (col. 3, lines 24-35).

For **claim 117**, Benati teaches the method of claim 105, further comprising saving said subsample representation of said image (col. 3, lines 24-37; col. 4, lines 29-45).

For **claim 118**, Benati teaches the method of claim 105, further comprising determining said subsample representation of said image in hardware (col. 3, lines 24-46).

For **claim 121**, Benati teaches the method of claim 105, wherein said modifying of the area is performed including the full resolution of said image (col. 7, lines 8-35).

For **claim 122**, Benati teaches the method of claim 98, further comprising determining said subsample representation utilizing a plurality of sub-filters (fig. 2, col. 3, lines 46-62).

For **claim 123**, Benati discloses the apparatus of claim 122, wherein said subsampling for said sub filters operating on selected regions of said image is determined by one or more of the image size (fig. 2, col. 3, lines 46-62; col. 7, lines 8-35), suspected as red eye region size (col. 3, line 63 – col. 4, line 16; col. 4, line 51 – col. 5, line 21), filter computation complexity (col. 4, line 51 – col. 5, line 36; col. 5, line 38 – col. 6, line 15), empirical success rate of said sub filter (col. 4, lines 6-16), empirical false detection rate of said sub filter (col. 3, line 63 – col. 4, line 16; col. 4, line 51 – col. 5, line 21), falsing probability of said sub filter (col. 3, line 63 – col. 4, line 16; col. 4, line 51 – col. 5, line 21), relations between said suspected regions as red eye, results of previous analysis of other said sub filters (col. 5, line 38 – col. 6, line 15).

For **claim 124**, Benati teaches the method of claim 98, further comprising:

(d) locating pixels having a color indicative of the red-eye phenomenon (col. 3, line 63 – col. 4, line 16);

(e) determining if a grouping of at least a portion of the located pixels comprise a shape indicative of the red-eye phenomenon (col. 4, line 51 – col. 5, line 21); and

(f) modifying the color of the pixels within the grouping (col. 3, line 63 – col. 4, line 16; col. 4, line 51 – col. 5, line 21).

For **claim 125**, Benati teaches the method of claim 124, further comprising processing the image in a vicinity of the grouping for details indicative of an eye, and enabling the pixel modifier in response thereto (col. 3, line 63 – col. 4, line 16; col. 4, line 51 – col. 5, line 21).

For **claim 126**, Benati teaches the method of claim 124, further comprising determining if the image was acquired and/or recorded in a condition indicative of the red-eye phenomenon (fig. 2, col. 3, lines 46-62).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. **Claim 119** is rejected under 35 U.S.C. 103(a) as being unpatentable over Benati et al. (U.S. Pat. #5748764) in view of Nicponski (U.S. Pat. 5974189).

For **claim 119**, Benati teaches the method of claim 105 further comprising determining said subsample representation (figs. 2-4; col. 3, lines 46-62; col. 4, lines 17-45). However, Benati does not expressly teach determining said subsample representation using spline interpolation.

In a similar field of endeavor, Nicponski teaches determining said subsample representation using spline interpolation (col. 7, lines 27-31). In light of the teaching of Nicponski, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the method using spline interpolation in order to enable improved enhancement effects on the image such as shadows, glows, etc. (Nicponski, Abstract).

13. **Claim 120** is rejected under 35 U.S.C. 103(a) as being unpatentable over Benati et al. (U.S. Pat. #5748764) in view of Naqvi et al. (U.S. Pat. #5847714).

For **claim 120**, Benati teaches the method of claim 105, further comprising determining said subsample representation (figs. 2-4; col. 3, lines 46-62; col. 4, lines 17-45). However, Benati does not expressly teach determining said subsample representation using bi-cubic interpolation.

In a similar field of endeavor, Naqvi teaches determining said subsample representation using bi-cubic interpolation (col. 5, lines 4-6). In light of the teaching of Naqvi, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method using bi-cubic interpolation in order to enable improved magnified destination image (Naqvi, col. 2, lines 3-5).

Allowable Subject Matter

14. **Claims 1-70** objected to due to double patenting rejection of claims 1 and 36, but would be allowable upon filing of a proper terminal disclaimer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carramah J. Quiett whose telephone number is (571) 272-7316. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CJQ
August 29, 2007


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SUPERVISORY PATENT EXAMINER